

### REMARKS

The specification has been amended to correct errors of a typographical and grammatical nature. Due to the number of corrections thereto, applicants submit herewith a Substitute Specification, along with a marked-up copy of the original specification for the Examiner's convenience. The substitute specification includes the changes as shown in the marked-up copy and includes no new matter. Therefore, entry of the Substitute Specification is respectfully requested.

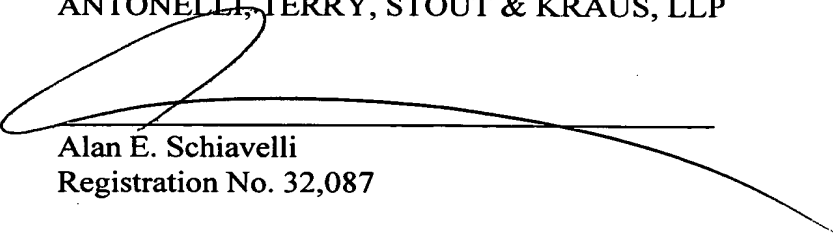
The abstract has also been amended to more clearly describe the features of the present invention.

Entry of the preliminary amendments and examination of the application is respectfully requested.

To the extent necessary, applicant's petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (503.39842X00) and please credit any excess fees to such deposit account.

Respectfully submitted,

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Abstract of the Disclosure:

A composite panel ~~of an element member in which~~ having a non-adhesion portion is mounted on a stationary table and a bending table and is fixed thereto by vacuum adsorption pads. An upper portion bending table is mounted on a face sheet ~~of providing~~ the non-adhesion portion. The face sheet is ~~adsorbed according to~~ secured using the vacuum adsorption pad on the bending table. The bending table is rotated, ~~then so that~~ the face sheet is bent. ~~A~~ The center core member is cut with a ~~V-shape~~ V-shape. An adhesion agent is coated. Next, by rotating the lower bending table, the other a face sheet ~~is bent~~ and the center core member are bent so that the core member is adhered to the upper face sheet. Without ~~causes of causing~~ a gap between a face sheet and a center core member and a partial contact, an integral bending processing of a flat sheet shape composite panel can be realized. In addition to this, ~~in a to strength~~ assurance adequate strength in a bending processing portion of the composite panel, it is unnecessary to provide a separate member and the like.

~~[Selection Figure]—Fig. 1~~



503.39842X06  
AES

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Title of the Invention:

COMPOSITE PANEL AND BENDING PROCESSING METHOD OF THE SAME

Background of the Invention:

5      Technical Field

The present invention relates to a composite panel, and <sup>having an angular bend</sup> to <sup>producing such</sup> a bending processing method of a composite panel.

Prior Art

10      In the <sup>production of</sup> prior art, in <sup>known</sup> a composite panel <sup>using</sup> (and) a bending processing method of <sup>providing the</sup> (a) composite panel, two face sheets and a center core member are positioned <sup>so that the center core member is interposed between</sup> along to the <sup>above</sup> two face sheets. Next, using a monopoly type die having a pair of a convex <sup>die member</sup> type and a concave type <sup>die member</sup>, and a pressing device the two face sheets and the center core member are adhered <sup>to one another</sup> and fixed. <sup>together while simultaneously producing an angular bend therein</sup> Or, for <sup>using</sup> example, <sup>covering</sup> a monopoly die having a convex type die, the two face sheets and the center core member <sup>are formed of</sup> (using) a non-ventilation characteristic sheet, <sup>are formed</sup> (and) by <sup>pressing while</sup> evacuating an inner portion of the sheet, <sup>so that</sup> the two face sheets and the center core member <sup>to one another</sup> are adhered <sup>together while producing an angular bend therein</sup> and fixed.

20      In another bending processing method of a composite panel,

as shown in Japanese application utility model publication No. Hei 2-8567, from a side of a face sheet <sup>which represents</sup> (for forming) an inner periphery, after <sup>the inner sheet</sup> (a) bending portion of the composite panel, <sup>while</sup> the face sheet which forms <sup>the</sup> a side of an outer periphery after the bending <sup>and</sup> (portion) of the composite panel is left, a V-shaped groove is processed, <sup>which forms</sup> along (to) an apex of this groove, the face sheet (in) the outer periphery <sup>side</sup> of the composite panel is <sup>subjected to</sup> (carried)

[out the] bending processing.

In the above <sup>- described</sup> <sup>producing a</sup> stated prior art techniques relating to [the] <sup>a</sup> bending processing method of [the] composite panel, <sup>while still separate from</sup> [separating] <sup>to have</sup> the center core member, the face sheet is transformed <sup>then,</sup> [in] a predetermined bending shape, and <sup>is combined</sup> by combining the face sheet, <sup>to cause</sup> with the center core member, <sup>to be to each other together</sup> since the face sheet and the center core member <sup>and this is carried out by</sup> [are] adhered and fixed, [it is relied on] a hand working using a general purpose machine.

Further, the face sheet and the center core member, which <sup>a</sup> are transformed individually using [the] monopoly-type die having <sup>a die member</sup> [the] convex type, and <sup>a die member</sup> [the] concave type, (a monopoly type having an upper portion monopoly die and a lower portion monopoly die) and <sup>a</sup> [the] pressing device, or for example <sup>a</sup> [the] concave type monopoly die, <sup>member</sup> (the lower monopoly die), [the face sheet and the center core] <sup>a</sup> [member] are covered by [the] non-ventilation characteristic sheet member, and the inner portion of the sheet member and the face sheet and the center core member are adhered <sup>to each other together</sup> and fixed.

A mutual gap and <sup>a</sup> [a] partial contact (a local application of pressure) between the center core member, the face sheet and the monopoly die <sup>are produced and</sup> [generate], an adhesion failure and a buckling <sup>are produced, so that</sup> in <sup>the</sup> [a] thickness direction of the center core member, <sup>is reduced</sup> [generate and] [then] <sup>the</sup> [a] strength of the face sheet <sup>becomes lower</sup>. Further, in the face sheet in which [the] partial contact (the local application of pressure) generates a recess <sup>ed</sup> portion [and] a damage <sup>the</sup> and the like, <sup>becomes unsightly</sup> [as a result an] outer appearance of the face sheet <sup>is damaged</sup>.

# Summary of the Invention:

An object of the present invention is <sup>to</sup> provide <sup>to realize</sup> <sup>Having an angular bend</sup> a composite panel and a bending processing method of <sup>producing such</sup> a composite panel <sup>in which the</sup> <sup>a</sup> [without an] occurrence of [the] gap or [the] partial contact <sup>is eliminated, so as</sup> (the local application of pressure) between the face sheet and the center core member, <sup>an angular</sup> [and] to provide, <sup>to realize a bending</sup> composite panel having a high strength.

Another object of the present invention <sup>is</sup> to provide a <sup>Having an angular bend</sup> composite panel and a bending processing method of <sup>producing such</sup> a composite panel wherein <sup>the panel is produced</sup> without the monopoly die for <sup>need for a</sup> [use in] every bending configuration, <sup>and in which both</sup> <sup>Having an angular bend</sup> [each] a composite panel and a bending processing of a composite panel can be realized <sup>in such a way as</sup> <sup>an angular</sup> [and] to provide <sup>a bending</sup> composite panel having a high strength.

The above-stated objects of the present invention can be attained by a composite panel comprising a first flat face sheet, a second flat face sheet, <sup>and</sup> a flat center core member joined to the first flat face sheet and the second flat face sheet, characterized in that an end portion of the second flat face sheet is positioned <sup>so as to be</sup> shorter than <sup>an</sup> end portion of the first flat face sheet, and the center core member <sup>surface of the</sup> [in a side of] <sup>at</sup> the end portion <sup>facing</sup> of the <sup>second</sup> first flat face sheet is not joined to the <sup>prior to the bending processing</sup> first flat face sheet.

The above-stated objects of the present invention can be attained by a bending processing method of <sup>producing</sup> a composite panel having the steps <sup>of</sup> forming a first flat face sheet, a second flat face sheet, and a flat center core member <sup>to be</sup> joined <sup>to</sup> the first flat face sheet and the second flat face sheet, <sup>to be</sup> preparing a composite

in a portion of the second flat face sheet on the panel, which is not joined to the flat center core member in a composite panel by [side of an] end portion of the first face sheet, installing the

first flat face sheet to a stationary table and a first bending table, to direct to the stationary table and the first bending table, so as to extend along

5. table, contacting a first bending table, the non-joined region of the second flat face sheet from an outer portion of the composite panel, in a condition in which the stationary table is fixed to the composite panel and the second bending table

is fixed to the non-joined region of the second flat face sheet,

10. rotating the second bending table in a direction to separate

from the center core member, removing the flat center core member

in a position in which the composite panel is bent with a V-shape

coating an adhesion agent to one of the second flat face sheet

and an opposed face to the flat center core member, and to adhere

15. the flat center core member to the second flat face sheet,

rotating the first bending table.

The composite panel in the present invention can be

applied to a polystyrene foam panel and a soldering honeycomb

panel. The material of the face sheet can be employed the metal,

20. such as aluminum, a FRP (Fiber Reinforced Plastic) and the paper,

etc. The material of the center core member can be employed

a honeycomb shape paper, a honeycomb shape FRP (Fiber Reinforced

Plastic), and a foam material, such as vinyl chloride, phenylic

acid (phenol), acrylic acylate, urethane. The joining manner

25. of the center core member with the face sheet can be employed

the soldering manner, the adhesion manner, and the welding

manner, etc. /

*the*  
Brief Description of *the* Drawing:

Fig. 1 is a longitudinal cross-sectional view showing an initial state of an essential portion of a bending processing device having a composite panel *mounted thereon according to* of one embodiment *according to* the present invention;

Fig. 2 is a longitudinal cross-sectional view showing a midway *point* of *the* bending processing *using* in the bending processing device of Fig. 1;

Fig. 3 is a longitudinal cross-sectional view showing a state *of* in which the bending processing *following the step shown in* is proceeded from Fig. 2 *using* in the bending processing device of Fig. 1;

Fig. 4 is the longitudinal cross-sectional view showing a state *of the* in which a bending processing *following the step shown in* is proceeded from Fig. 3 *using* in the bending processing device of Fig. 1;

Fig. 5 is a longitudinal cross-sectional view showing a state *of* in which the bending processing *following the step shown in* is proceeded from Fig. 4 *using* in the bending processing device of Fig. 1;

Fig. 6 is a *whole* perspective view showing the bending processing device of Fig. 1;

Fig. 7 is a front view showing an end portion of a bending table of the bending processing device of Fig. 1; and

Fig. 8 is a longitudinal cross-sectional view of the end portion of a bending table of the bending processing device of Fig. 7.

Description of the Invention:

*Having an angular bend*  
A composite panel and a bending processing of a composite

panel <sup>according to</sup> of one embodiment <sup>with reference</sup> [according to] the present invention will be explained <sup>referring</sup> to [from] Fig. 1 to Fig. 5. Firstly, [a] <sup>the</sup> construction [of an] <sup>and</sup> element material <sup>of</sup> of a composite panel for carrying out a bending processing will be explained. In Fig.

5 1, the composite panel to be subjected to [the] bending processing comprises a face sheet 11, which <sup>represents</sup> [becomes] a side <sup>forming</sup> [of] an outer face <sup>of the panel at the</sup> of use, a face sheet 12, which <sup>represents</sup> [becomes] a side <sup>forming</sup> [of] an inner face <sup>of the panel at the</sup> of use, and a center core member 13, which is arranged between the face sheet 11 and the face sheet 12. These  
10 three members (the face sheet 11, the face sheet 12, and the center core member 13) are constituted as one body <sup>using</sup> [according] <sup>method</sup> [to] an adhesion [manner].

Each of the face sheet 11 and the face sheet 12 is formed <sup>by</sup> a metal sheet, such as an aluminum sheet, a steel sheet and  
15 the like <sup>and</sup>. Further, each of the face sheet 11 and the face sheet 12 <sup>can be</sup> [is] formed by the above-stated metal sheet and a vinyl chloride adhesion dressing sheet or a melanin resin dressing sheet etc. <sup>which is adhered thereto</sup> [being put to adhere together] by <sup>the</sup> (a) coating, and <sup>the</sup> (a) thickness of the face sheet 11 or the face sheet 12 is about 0.5 mm - 2.0  
20 mm.

The center core member 13 is formed by a paper center core member, such as a roll core and a paper honeycomb; and, further, the center core member 13 is <sup>provided with</sup> [formed by] a urethane-foam resin, which is filled up in <sup>the</sup> (a) cells of the [above stated] paper center  
25 core member <sup>so as</sup> to <sup>provide</sup> [aim a] heat insulation and <sup>using the</sup> (a) sound shielding <sup>the</sup> [and] (a) resilient urethane-foam resin [etc.], and <sup>the</sup> (a) thickness the center core member 13 is about 20 mm - 50 mm.

The entire surface <sup>is</sup> in contact with <sup>center core member 13</sup> ~~(All faces)~~ of the face sheet 11 <sup>significance</sup> ~~(and)~~ the center core member 13 <sup>expression "entire surface"</sup> ~~(are)~~ adhered <sup>in</sup> ~~(substantially)~~ to the <sup>to</sup> ~~(face sheet 11)~~. The <sup>in</sup> ~~(meaning)~~ of the <sup>the following</sup> ~~(all faces)~~ will be made clear ~~(according to)~~ the following explanation of the adhesion of the face sheet 12 ~~(and)~~ the center core member 13. The face sheet 12 and the center core member 13 are adhered only at an adhesion portion 12b, but are not adhered at a remaining non-adhesion portion 12a. The non-adhesion of the portion 12a can be obtained by avoiding <sup>any</sup> ~~(a)~~ coating of <sup>on this portion</sup> ~~(an)~~ adhesion agent. The non-adhesion portion 12a is <sup>on</sup> ~~(a)~~ side <sup>of the portion</sup> ~~(in)~~ which a bending processing is <sup>to be</sup> ~~(is)~~ carried out.

A length of the face sheet 12 is shorter than <sup>by</sup> ~~(a)~~ length of the face sheet 11 <sup>as seen in Fig. 1</sup> ~~(with)~~ a length 12c. The face sheet 12 is bent to form an inner side of the <sup>composite panel</sup> ~~(bending)~~. <sup>in this regard</sup> ~~(Accordingly)~~, when the bending processing of the composite panel is carried out, between the face sheet 11 and the face sheet 12, a peripheral length difference 12c <sup>is</sup> ~~(is)~~ generated. <sup>Thus, the</sup> ~~(The)~~ inner side face sheet 12 is shorter than the face sheet 11 <sup>by this</sup> ~~(with)~~ a peripheral length difference 12c.

Next, the bending processing method of <sup>producing</sup> the composite panel will be explained. Fig. 1 shows a state in which the above-stated composite panel is set on a bending processing device. Firstly, the composite panel is laid on a stationary table 30 and a bending table 40 of the bending processing device. The faces of the stationary table 30 and the bending table 40 are positioned in the <sup>same</sup> ~~(horizontal)~~ <sup>plane</sup> ~~(same face)~~. ~~(Forming the face sheet 12 in an upper face)~~ The composite panel is laid on the stationary table 30 and the bending table 40 <sup>with the face sheet 12 facing up</sup> ~~(The A)~~ side of <sup>panel where</sup> ~~(the non-adhesion~~

is located, on <sup>to be</sup> portion 12a, ~~(to)~~ which the bending processing is carried out, is <sup>located</sup> ~~(laid)~~ on the bending table 40.

Next, <sup>using</sup> ~~(according to)~~ vacuum pads 31 and 41 of a vacuum adsorption device, which is installed on the stationary table

5 30 and the bending table 40, the face sheet 11 is adsorbed and <sup>in position on these tables</sup> fixed. Next, a bending table 50 is <sup>lowered into contact with</sup> ~~(descended and is laid on)~~ the face sheet 12 <sup>on</sup> ~~(of)~~ the non-adhesion portion 12a.

Next, <sup>using</sup> ~~(according to)~~ a vacuum pad 51 of the vacuum adsorption device, which is installed on the bending table 50, <sup>the end of</sup> ~~(to the bending table 50)~~

10 the face sheet 12 is adsorbed and fixed. The vacuum adsorption

pads 31, 41, and 51 are installed with a predetermined interval

along ~~(to)~~ the longitudinal direction <sup>the</sup> ~~(an)~~ axial direction of <sup>the</sup> ~~(a)~~ center of the bending) of the stationary table 30 and the bending table 40, and the bending table 50.

15 Next, as shown in Fig. 2, by rotating the bending table

50, <sup>the</sup> ~~(in an upper)~~ <sup>of</sup> ~~portion~~ the face sheet 12 <sup>which forms</sup> ~~(of)~~ the non-adhesion portion 12a is bent in the upper <sup>direction</sup> ~~(portion)~~. In this embodiment

according to the present invention, since the face sheet 12 is at a 90 degree angle <sup>the</sup> bent, ~~(rectangular)~~ <sup>rotated to be</sup> a contact face of the bending table 50 is, ~~(in)~~

20 <sup>to the plane of face sheet 12</sup> perpendicular. The bending table 50 is positioned only at the

non-adsorption portion 12a. An <sup>edge</sup> ~~(end)~~ portion of the bending table

50, <sup>around which the bending occurs</sup> is positioned <sup>at</sup> ~~(in)~~ a boundary of the non-adhesion portion 12a

and the adhesion portion 12b or <sup>within the area</sup> ~~(in a side)~~ of the non-adhesion portion 12a, a <sup>small distance</sup> ~~(little)~~ from the boundary. The ~~(position of the)~~

25 <sup>edge</sup> ~~(end)~~ portion of the bending table 50 becomes a center <sup>axis</sup> ~~(of)~~ the

bending. <sup>rotation</sup> ~~(An)~~ end <sup>the</sup> ~~(portion of)~~ the boundary side of the bending table 50 is inclined <sup>at</sup> ~~(is abstracted)~~ <sup>so as</sup> to not contact ~~(to)~~ the face

sheet 12<sup>rotation of</sup> during the bending table 50 <sup>is rotated</sup>.

Next, as shown in Fig. 3, the <sup>exposed</sup> center core member 13 is cut <sup>tool using</sup> [off] with a V-shaped <sup>so is</sup> according to a V-cutting device 60. The V-cutting is carried out to remove only <sup>a portion of</sup> the center core member 13 <sup>while</sup> leaving the face sheet 11. <sup>untouched</sup> The position of the V-cutting is the bending position, <sup>and the</sup> [An] angle of the V-cutting <sup>corresponds to</sup> [is] the bending angle <sup>which</sup> [and] is a right angle <sup>of in this example</sup> [and] 90 degrees. Using a knife 61 for carrying out the V-cutting, two faces are cut off at the same time. In the V-cutting, under a condition in which the knife 61, such as a router and an end milling <sup>tool</sup>, [61] is inclined <sup>moved along the</sup> [in] at a predetermined angle, <sup>so that a portion of</sup> [and] the knife 61 is <sup>sent toward a</sup> bending line <sup>direction and</sup> the center core member 13 is removed. Since the center core member 13 is formed by <sup>a</sup> [the] paper center core member and <sup>a</sup> [the] member in which a urethane-foam resin is filled <sup>in</sup> [up to] the paper center core member, even <sup>if a little of</sup> the center core member 13 is left <sup>on</sup> [a little in] the face sheet <sup>side</sup>, by carrying out the bending processing, <sup>any remaining portion of</sup> the center core member 13 can be <sup>easily</sup> crushed.

Next, as shown in Fig. 4, from the upper <sup>side</sup> [portion to] the non-adhesion portion 12a and the V-cut ~~portion~~ <sup>are coated with an adhesion agent using</sup> portion of the center core member 13, according to <sup>at</sup> an adhesion agent coating device 70, the adhesion agent is coated. <sup>In</sup> [In] this time, since the gap between the face sheet 12 and the center core member 13 <sup>is relatively</sup> [becomes] large [and then], the adhesion agent coating can be carried out easily.

Next, as shown in Fig. 5, <sup>using the</sup> [forming an] apex of the V-cut <sup>groove</sup> ~~portion~~ as a center, <sup>rotation</sup> the bending table 40 is rotated <sup>until</sup> [toward the upper] [portion], the face of the bending table 40 <sup>is formed</sup> extends upward

to the plane of the stationary table 30 <sup>10</sup> With movement surface of the center core member 13 on perpendicular ~~the~~. <sup>been</sup> According to <sup>pressed into contact with the</sup> this, the face in which the adhesion agent has <sup>been</sup> coated can be contacted to a rear face of <sup>the V-cut groove in</sup> the face sheet 12. Further, the inclined faces of the center core member 13 <sup>pressed</sup> [of the V cutting] are <sup>pressed</sup> [contacted] together [with].  
5 [Leaving <sup>by</sup> this condition, <sup>the position of</sup> the center core member 13 is maintained <sup>until</sup> [during] the adhesion agent is hardened <sup>ed</sup> completely.

Next, after the vacuum of the adsorption pad 51 of the bending table 50 <sup>been</sup> has released, the bending table 50 is <sup>moved away</sup> [ascended].

Next, after the vacuum of the adsorption pad 41 of the bending <sup>has been</sup> table 40 <sup>rotated back</sup> is released, the bending table 40 is [reversed] to <sup>on</sup> [the] <sup>horizontal orientation</sup> initial [time condition]. Next, the composite panel <sup>has been carried out</sup> which [has] <sup>from</sup> [carried out] the bending processing, is taken out <sup>when</sup> [in] a side of the bending table 40 <sup>when</sup> [and] the bending processing of the composite panel is completed.

15 According to the above <sup>- described</sup> bending processing method of <sup>production of</sup> the composite panel, <sup>any</sup> without the occurrence of [the] gap [and the] or partial contact (the local application of pressure) between the face sheet 11 and the face sheet 12 and the center core member 13, the bending processing of the composite panel can be carried  
20 out. Further, in the bending portion, since the face sheet 12 <sup>into</sup> is not separated <sup>has been carried out</sup> two portions, after the bending processing of the composite panel, it is unnecessary to weld the non-adhesion <sup>of the panel</sup> portion 12a and the adhesion portion 12b, using [the] another (separation) member.

25 <sup>As seen in</sup> [In] Fig. 6, the V-cutting device 60 and the coating device 70 of the adhesion agent are installed <sup>on</sup> to a moving body 80. The <sup>rails 81 in the</sup> <sup>on</sup> [moving body 80] moves along [to a] longitudinal direction of the

composite panel. The moving body 80 moves along <sup>the</sup> [to a] rails 81, which are <sup>mounted on</sup> [of] a side face of the bending processing device. The V-cutting device 60 and the adhesion agent coating device 70 are <sup>carried by</sup> [installed] <sup>a lifting</sup> [to an ascending] and <sup>lowering</sup> [descending] device 83, which is <sup>carried by the moving body 80</sup> [one of] either 5 the V-cutting device 60 <sup>on</sup> [and] the adhesion agent coating device 70, it is possible to <sup>put these devices into</sup> [use the] practical use.

Both ends of the bending table 50 are installed <sup>on a shaft 53 which is</sup> [rotatably] <sup>rotatable and is carried</sup> freely on an ascending and descending device 55 <sup>raised</sup> [through a shaft] 53. The [ascending and descending] device 55 is <sup>lowered</sup> [ascended] and <sup>relative</sup> [descended] vertically <sup>she</sup> [according] to the rail 81. A reference numeral 56 <sup>Drives mechanism effecting of the shaft 53</sup> [is] a drive [machine] for rotation <sup>The for effecting rotation</sup> [use]. (A) rotation device of the bending table 40 will be <sup>in more detail with reference</sup> explained [referring] to Fig. 7 and Fig. 8. <sup>at</sup> [To] the both ends of the bending table 40, a semi-circular flange 43 is installed.

15 This flange 43 is supported by plural rollers 45b and 45c, which are installed <sup>on</sup> [to] a frame stand 44. The plural rollers 45b and 45c are installed <sup>so as to be arranged along and from track</sup> [in] a circular [arc shape]. The rollers 45b support a lower face of the flange 43. The rollers 45c contact <sup>at</sup> [to] an upper face of a circular arc-shaped guide rail 43b, which <sup>projects outwardly from</sup> [is installed on] the flange 43. Further, to the lower face of the bending table 40 <sup>at</sup> [the] circular arc-shaped projection portions are provided with a predetermined interval and are supported by the frame stand 44.

To <sup>the</sup> [a] left <sup>side</sup> [portion] and <sup>the</sup> [a] right <sup>side</sup> [portion] of the flange 43, <sup>trucks</sup> gear 46 are installed. The gear 46 <sup>trucks have</sup> [has] a rotation angle <sup>corresponding to the movement</sup> [part] of the bending table 40. <sup>On trucks</sup> [To] the frame stand 44, <sup>the</sup> [the] pinion gears 46b for meshing with the gear 46 are provided. <sup>the</sup> [To] pinion gears

46b at [the] both sides are rotated <sup>by</sup> [according to] a single motor  
47.

- described  
In the above [stated] embodiment according to the present invention, the bending angle is 90 degrees, but in <sup>the</sup> a panel being a case of, 5 another angle [suiting to this angle], the V-cutting is carried to provide a groove of the required angle out. For example, an end milling having the same [of a] bending angle <sup>as the</sup> [to an] angle forming an axial end and a side face of the end milling is used. Further, even when the angle of the V-cutting is smaller than the bending angle, the center core member <sup>can be easily</sup> 10 13 [is] crushed [in general], <sup>so that</sup> the bending processing of the composite panel can be carried out.

The adhesion agent can <sup>also</sup> be coated <sup>on the surface of</sup> [to] the face sheet 12 [of the side of] <sup>locally</sup> the center core member 13. However, when the adhesion agent is coated <sup>on</sup> [to] the V-cut ~~portion~~ <sup>so that</sup> portion, a high 15 strength can be obtained, <sup>apply</sup> it is preferable to [carry out] the <sup>adhesive</sup> coating <sup>on</sup> [to] the center core member 13.

<sup>The</sup> [A] technical range according to the present invention is <sup>described embodiments or the features illustrated in the drawings</sup> not limited by the [wordings defined in each claim of what is] but includes a range of equivalents which would be within the technical [claimed is or the wordings stated on the means for solving the] 20 [understanding of one skilled in the art to which the invention relates. problems and further it refers also to the range in which the] [man belonged in this technical field can be placed easily].

According to the present invention, <sup>a portion of</sup> one face sheet [to] which <sup>to the center core member</sup> [a part thereof] is not adhered, is bent, the center core member <sup>to form a V-groove</sup> is removed, next <sup>an</sup> [the] adhesion agent is coated, <sup>and then</sup> <sup>the other</sup> [another] face sheet is folded <sup>until the center core member becomes</sup> [and] adhered <sup>to the bent face sheet. In this way, neither</sup> [the] gap between the face sheet and the center core member <sup>no</sup> [and the] partial contact (the local application of pressure) <sup>created</sup> are <sup>so that</sup> [not caused], it is

possible to carry out the bending processing of the composite panel. Since the cutting of the face sheet is unnecessary, but <sup>remains continuous</sup> <sup>an adequate</sup> <sup>can be assured</sup> the face sheet, [continues], [the] strength [assurance] in the bending processing portion [can be obtained].



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